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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,358	06/12/2001	Koichi Miyachi	1035-328	2180

7590 09/11/2003  
NIXON & VANDERRHYE P.C.  
1100 North Glebe Rd., 8th Floor  
Arlington, VA 22201-4714

EXAMINER

ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/878,358

Applicant(s)

MIYACHI ET AL.

Examiner

Fritz Alphonse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-153 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-153 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## **DETAILED ACTION**

### ***Election/Restriction***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

a) Fig. 1 is directed to species #1 in which the specific elements are an inverter control circuit 1, an inverter 2, a cold cathode tube 3 (emitter), a liquid crystal panel control circuit 4, and a liquid crystal panel 5, the cold cathode tube 3, upon receiving the high voltage, emits light to illuminate the liquid crystal panel 5, as described in the first embodiment.

b) Fig. 9 is directed to species #2 in which the specific elements are a liquid crystal display device including a first cold cathode tube (503a), a second cold cathode tube (503b), and inverters (502a) and (502b), as described in the second embodiment.

c) Fig. 26 is directed to species #3 in which the specific elements are a plurality of inverters (607), a plurality of cold cathode tube (illuminating elements 608), as described in the third embodiment.

d) Fig. 32 is directed to species #4 in which the specific elements are the partition walls 615 and a partition portion of a concave shape 612a corresponding to each emitting area, as disclosed in the fourth embodiment.

e) Fig. 35 is directed to species #5 in which the specific elements are an inverter control circuit 801, an inverter 802, a cold cathode tube 803 (emitter), a liquid crystal panel control circuit 804, and a liquid crystal panel 805. The inverter control circuit 801, the inverter 802, the cold cathode tube

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(emitter) 803, and the liquid crystal panel control circuit 804 make up an illumination device, as disclosed in the seventh embodiment.

f) Fig. 46 is directed to species # 6 in which the specific elements are an inverter control circuit 801 which is adopted to incorporate four equal small pulses P in an OFF period of the inverter input signal, which is the OFF period of the cold cathode tube 803. Each small pulse P has a time width H2 which is sufficiently smaller than a time width H1 of an ON period, as disclosed in the eighth embodiment.

g) Fig. 47 is directed to species # 7 in which the specific elements are an inverter control circuit 801 which is adopted to incorporate two small pulses P at the beginning and the end of the Off period of the inverter input signal which is the OFF period of the cold cathode tube 803, as disclosed in the ninth embodiment.

h) Fig. 49 is directed to species # 8 in which the specific elements are the inverter control circuit 801, which is adapted to incorporate a small pulse P in an OFF period of the inverter input signal (inverter driving signal), which is the OFF period of the cold cathode tube 803, in addition to slacking a rise and a fall of the waveform of the inverter input signal. The small pulse P has a time width H2 which is sufficiently shorter than a time width H1 of an ON period, as disclosed in the tenth embodiment.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

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Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

### *Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is (703) 308-8534.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached on (703) 305-9720.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:** (703) 872-9314 (for Technology Center 2600 only)


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA.,  
Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone number  
is (703) 306-0377.

  
F. Alphonse

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August 28, 2003

  
STEVEN SARAS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600